Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A fuel cell system comprising:

a fuel cell stack supplied with fuel gas and oxidant gas to generate an electric power which is supplied through a diode to a load installed on a fuel cell powered vehicle;

a secondary battery by which an electric power is charged and discharged;

an electric power converter connected to the fuel cell stack through the diode to convert an electric power ~~level~~, charged in the secondary battery, and supply a converted electric power to the load; and

a controller that ~~includes a table of voltage-current characteristics of the fuel cell stack during start-up, and~~ controls the electric power converter under two control modes during a start-up of the fuel cell stack, the two control modes including: a first control mode to set a <u>target</u> voltage level of an electric power to be supplied to the load from the secondary battery ~~at a value~~ equal to or greater than an open voltage level of the fuel cell stack; and a second control mode <u>to set a target electric power level of an electric power to be supplied to the load from the secondary battery equal to an electric power level of an electric power being supplied to the load from the secondary battery,</u> to perform <u>a</u> reduction of ~~an~~ <u>the target</u> electric power level <u>at a given rate</u> ~~of the electric power to be supplied to the load from the secondary battery to an electric power level less than a detected electric power level of an electric power supplied to the load through the electric power converter~~, and to interrupt the reduction of the <u>target</u> electric power level when one of the following conditions is satisfied: (1) an output electric current <u>level</u> of the fuel cell stack increases beyond a <u>first</u> threshold ~~in the table~~; and (2) an output voltage <u>level</u> of the fuel cell stack drops below a <u>second</u> threshold ~~in the table~~ <u>the first and second thresholds being predetermined based on a voltage-current characteristic during the start-up of the fuel cell stack to a completion of the start-up.</u>

2.   (Cancelled).

3.   (Cancelled).

4.   (Currently Amended) The fuel cell system according to claim 1, wherein <u>when a temperature of the fuel cell stack is less than a given value under the first control mode,</u> the controller is adapted to control the electric power converter <u>under the second control mode</u> ~~such that under the first control mode a temperature of the fuel cell stack is detected whereupon, if the detected temperature of the fuel cell stack is less than a given value, the electric power converter detects an electric power level supplied to the load to allow the secondary battery to supply the electric power to the load at an electric power level less than resulting detected electric power level~~.

5.   (Currently Amended) The fuel cell system according to claim 1, wherein the controller is adapted to <u>measure an output voltage level of the fuel cell stack under the first control mode and</u> control <u>a timing of the reduction under the second control mode depending on</u> ~~the electric power converter such that under the first control mode a voltage level of the fuel cell stack is detected whereupon a timing, at which the electric power level to be supplied to the load through the electric power converter is reduced, is controlled depending upon~~ a rise-up condition of the ~~detected~~ <u>output</u> voltage level of the fuel cell stack.

6.   (Currently Amended) A fuel cell system comprising:

a fuel cell stack supplied with fuel gas and oxidant gas to generate an electric power which is supplied through a diode to a load installed on a fuel cell powered vehicle;

a secondary battery by which an electric power is charged and discharged;

electric power converting means connected to the fuel cell stack through the diode and converting an electric power ~~level~~, charged in the secondary battery, ~~to be supplied~~ <u>and supplying</u> to the load; and

control means that ~~has a table of voltage-current characteristic of the fuel cell stack during start-up, and~~ controls the electric power converter means under two control modes during start up of the fuel cell stack, the two control modes including: a first control mode to set a <u>target</u> voltage level of an electric power to be supplied to the load from the secondary battery ~~to the load, at a value~~ equal to or greater than an open voltage level of the fuel cell stack; and a second control mode <u>to set a target electric power level of an electric power to be supplied to the load from the secondary battery equal to an electric power level of an electric power being supplied to the load from the secondary battery,</u> to perform <u>a</u> reduction of ~~an~~ <u>the target</u> electric power level <u>at a given rate</u> ~~of the electric power to be supplied to the load from~~

the secondary battery to an electric power level less than a detected electric power level of an electric power supplied to the load through the electric power converting means, and to interrupt the reduction of the <u>target</u> electric power level when one of the following conditions is satisfied: (1) an output electric current <u>level</u> of the fuel cell stack increases beyond a <u>first</u> threshold in the table; and (2) an output voltage <u>level</u> of the fuel cell stack drops below a <u>second</u> threshold in the table<u>, the first and second thresholds being predetermined based on a voltage-current characteristic during the start-up of the fuel cell stack to a completion of the start-up</u>.

7.   (Currently Amended) A method of controlling a fuel cell system, which has a fuel cell stack supplied with fuel gas and oxidant gas to generate an electric power which is supplied through a diode to a load installed on a fuel cell powered vehicle, and a secondary battery by which an electric power is charged and discharged, the method comprising:

converting a level of an electric power of the secondary battery to supply the electric power from the secondary battery to the load at a converted electric power level;

controlling the fuel cell system such that, when starting up the fuel cell stack, a voltage level of an electric power to be supplied from the secondary battery to the load is set at a value equal to or greater than an open voltage level of the fuel cell stack; and <u>setting a target electric power level of an electric power to be supplied from the secondary battery to the load equal to an electric power level of an electric power being supplied from the secondary battery to the load;</u>

controlling the fuel cell system to perform <u>a</u> reduction of an <u>the target</u> electric power level <u>at a given rate</u> of the electric power to be supplied to the load from the secondary battery to an electric power level less than a detected electric power level supplied to the load[[,]]<u>;</u> and

interrupting the reduction of the <u>target</u> electric power level when one of the following conditions is satisfied: (1) an output electric current of the fuel cell stack increases beyond a <u>first</u> threshold; and (2) an output voltage of the fuel cell stack drops below a <u>second</u> threshold<u>, the first and second thresholds being predetermined based on a voltage-current characteristic during the start-up of the fuel cell stack to a completion of the start-up</u>.

8.   (Currently Amended) The fuel cell system according to claim 1, wherein the controller is adapted to control <u>keep</u> the fuel cell stack such that the fuel cell stack is kept in a

stand-by state ~~during the start-up of the fuel cell stack~~ when one of the conditions (1) and (2) is satisfied.

9.   (Cancelled).

10.   (Currently Amended) The fuel cell system according to claim 5, wherein ~~the controller is adapted to control the electric power converter such that~~ when the rise-up condition of a ~~detected power~~ output voltage level of the fuel cell stack is slower than a predetermined rise-up condition, ~~then~~ the controller is adapted to delay [[a]] the timing ~~at which electric power is taken out from the fuel cell stack~~ of the reduction under the second control mode ~~is delayed from a pre-existing timing~~, in order to stabilize the fuel cell stack.